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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,859	12/11/2003	Gerd Hexels	LORWER P27AUS	8101
20210	7590	08/01/2006	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. 112 PLEASANT STREET CONCORD, NH 03301			RUDDOCK, ULA CORINNA	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 08/01/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,859

Applicant(s)

HEXELS, GERD

Examiner

Ula C. Ruddock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 5, 2006, has been entered.
2. The Examiner has carefully considered Applicant's claims and accompanying response filed March 31, 2006. The rejections in view of Pusch et al. (US 4,308,882) have been overcome. However, after an updated search, additional prior art has been found which renders the invention as currently claimed unpatentable for reasons herein below.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 37-39, 41-44, and 48-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 29716362 (DE '362) in view of Hellwig et al. (DE 20212487). DE' 362 discloses a thermal camouflage tarpaulin that screens heat sources from recognition in a thermal image. The construction comprises a textile substrate with glass filaments. On one side there is a silicone elastomer coating containing aluminum powder and on the other side of the glass textile there is a silicone elastomer containing metal pigments. The textile is a glass fabric with plain weave. A plastic fiber system with polyester binding fiber can be used. The silicone elastomer is crosslinked.

The metal pigments that are used contain chromium oxide. Regarding claim 53, it should be noted that the method of forming an article is not germane to the issue of patentability of the article itself. Therefore, the limitation of a "transfer coating method" has not been given patentable weight. A complete translation of this document has been ordered. DE '362 discloses the claimed invention except for the teaching that the coating containing the color pigments is in the form of a polyurethane coating.

Hellwig et al. (DE 20212487) disclose a thermal camouflage tarpaulin for hiding heat sources against detection in a thermal image. The base textile is a glass fabric (abstract), preferably with a cross-twill construction. The fabric has a basis weight in the range from 300-500 g/m². A compound (reference point 5 in Figure 1) is coated onto the base textile which comprises polyurethane or silicone elastomers. The compound has been provided with IR pigments, namely chromium oxide pigments, to achieve camouflage in the visible and in the near infrared region. It would have been obvious to one having ordinary skill in the art to have used Hellwig's polyurethane or silicone coating containing chromium oxide pigments in place of the silicone elastomer coating containing metal pigments of DE '362, motivated by the desire to create a tarpaulin that is camouflaged in the visible and in the near infrared region. A complete translation of this document has been ordered.

Regarding claims 48 and 49, it should be noted that the amount of aluminum powder and the amount of color pigments are result effective variables. The amount of aluminum powder directly affects the amount of heat reflecting properties. The amount of color pigment directly affects the visibility of the fabric. Therefore, it would have been obvious to one having ordinary skill

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in the art to have used 20-40% aluminum powder and 10-50% color pigments, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized the amount of aluminum powder and color pigment, motivated by the desire to obtain a material that has decreased thermal radiation and increased heat reflecting properties.

5. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 29716362 (DE '362) in view of Hellwig et al. (DE 20212487) as applied to claim 37 above, and further in view of McKinney et al. (US 4,756,465). DE '362 and Hellwig et al. disclose the claimed invention except for the teaching that the polyurethane is crosslinked.

McKinney et al. (US 4,756,465) disclose a lightweight tenting fabric that has a base coat of a urethane on both surfaces of a woven substrate (abstract). Pigments are also desirable in making the tents for military usage by using camouflage prints on one side and solid infrared reflective color on the other side (col 5, ln 12-18). The urethane coating composition can be crosslinked (col 4, ln 25-33). It would have been obvious to one having ordinary skill in the art to have used the crosslinkers of McKinney et al. on the polyurethane coating of DE '362 and Hellwig et al., motivated by the desire to coating that has enhanced adhesion to the glass substrate.

6. Claims 40 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 29716362 (DE '362) in view of Hellwig et al. (DE 20212487) as applied to claim 37 above, and further in view of Bussiere (US 2,817,371). DE '362 and Hellwig et al. disclose the claimed invention except for the teaching that the glass fabric is at least one of a twill binding.

Bussiere (US 2,817,371) discloses fabrics that include glass fibers (col 2, ln 10-12) formed into binder threads which serve to maintain the warp and filling ends in proper position. The binding threads are formed into a twill weave which helps secure the ends into position (col 2, ln 55-60). It would have been obvious to one having ordinary skill in the art to have used Bussier's twill binding along the fabric of DE '362 and Hellwig, motivated by the desire to create a fabric where the warp and weft are secured and in their proper position.

Response to Arguments

7. Applicant's arguments with respect to claims 37-56 have been considered but are moot in view of the new ground(s) of rejection.

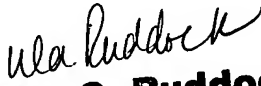
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is 571-272-1481. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UCR 


Ula C. Ruddock
Primary Examiner
Tech Center 1700